

REMARKS

Claims 1-21, 23, 25, 28-30, 33, and 35-44 remain pending in this application.

Claim 21 has been amended to correct an informality therein, and is not made for purposes of patentability. The amendment is not presented to overcome any rejection or to distinguish the claim over the prior art.

The Examiner rejected claims 1-3, 6, 7, 9-15, and 18-21 under 35 U.S.C. § 103(a) as being unpatentable over British Telecom WO 95/31865 (**BT**) in view of U.S. Patent Application No. 6,452,767 (**Brooks**). Applicants respectfully traverse this rejection.

Applicants respectfully assert that **BT** does not disclose or make obvious all of the elements of claims 1 and 13 of the present invention and as described below, **Brooks** does not make up for this deficit. For example, **BT** is directed to testing a telephone line between a consumer's network termination equipment and an exchange. Claims 1 and 13 of the present invention relate to a testing system adapted to determine the suitability of the line from a single point of the line. In contrast, **BT** discloses a system for testing a telephone line for its suitability using a field unit 5 positioned between the customer's telephone and the network termination equipment to produce a test signal and an exchange unit 6 positioned at the exchange. As called for in claim 1, Applicant's invention includes "applying a test signal at one point in the copper line" and "monitoring a response of the copper line at about the point where the test signal was applied." **BT** fails to teach or suggest providing and monitoring the test signal at a single point in the line. **BT** does not teach or suggest this feature, and this deficit is not compensated for by **Brooks**. Claims 13, 20, and 21 also include a similar feature, and therefore, all of the elements of claims 13, 20, and 21 are not allowable for at least the reasons cited above.

The combination of **BT** and **Brooks** does not disclose or make obvious all of the elements of claims 1, 13, 20, and 21 for various reasons. For example, those skilled in the art would not combine the disclosure of **BT** and **Brooks** to make obvious all of the elements of the claimed invention. For instance, **BT** is directed to testing a telephone line between a consumer's network termination equipment and an exchange. **BT** discloses a field unit that is positioned on a telephone line to perform field tests. In stark contrast, **Brooks** is directed to detecting arcing faults relating to a transformer. Without using *improper* hindsight reasoning, those skilled in the art would not be motivated to combine disclosures of such diverse respective subject matter. **Brooks** is directed to providing a test signal that provides a rate of change of current or voltage on a test file to detect whether an arcing occurs. Those skilled in the art would not combine the disclosure of arcing fault detection with the subject matter testing of a telephone line. Generally, substantial energy is needed to provoke an arc in a transformer (Brooks), wherein small signals, such as telephone signals, are the subject matter of **BC**. Therefore, there are no logical or persuasive arguments why **Brooks** and **BT** would be combined by those skilled in the art. Additionally, the Examiner does not provide evidence or arguments to support the contention of combining **BT** and **Brooks**. Applicants contend that it is improper hindsight reasoning to combine the diverse disclosure of **BT** and **Brooks** and respectfully assert that those skilled in the art would not have done so.

Additionally, Applicants assert that even if, *arguendo*, **BT** and **Brooks** were to be combined, all of the elements of the claimed invention would still not be disclosed or made obvious. As stated by the Examiner (in the Office Action dated May 18, 2004), **BT** fails to explicitly disclose monitoring a response of the copper line at about the point where the test

signal is applied. The Examiner uses **Brooks** to make obvious this element. However, Applicants respectfully assert that the test signal produced on the test wire is merely used to monitor an arcing fault. The Examiner cites Figure 6 and column 9, line 36-67 of **Brooks** to support such an argument. The Examiner stated that **Brooks** provides the element of monitoring the response of the copper line. Applicants respectfully assert that the monitoring of the arcing fault, which is brought about by simulating an arcing fault does not make obvious the element of monitoring a response of the copper line at about the point where the test signal is applied. The simulation of an arcing fault in **Brooks** is used to ensure that an arcing fault would be properly detected by the sensor. This is performed to ensure that, in the event of an arcing fault, a triggering of a line interrupt occurs in order to disconnect the load from the power source in a phase line that is disclosed by **Brooks**. The disclosure that an arcing fault is simulated and the arc is detected somewhere on a line of a transformer, in combination of the disclosure of **BC**, does not read upon the monitoring of the response of the copper line to the test signal when a signal is present.

Additionally, claim 1 of the present invention calls for monitoring about the point where the test signal is applied, wherein the arc may have taken place in **Brooks** somewhere on the transmission line and it does not detect the arc about any given point. **Brooks** merely performs a test to see whether a simulated arcing fault was detected as being present on a line relating to a transformer. Therefore, even combining **Brooks** and **BC**, all of the elements of claims 1, 13, 20, and 21 would not be taught, disclosed, or made obvious by **BC**, **Brooks**, or their combination.

Claims 20 and 21 are allowable for at least the same reasons provided above. Claim 20 is directed to testing the line at the subscriber's premises, an arrangement clearly not taught or

suggested by **BC**, **Brooks**, or their combination. **BT** requires one presence at the subscriber's premises and another presence at the termination equipment. Accordingly, **BT** does not test at the subscriber's premises and **Brooks** does not make up for this deficit. Also, claim 21 is directed to a test unit including a signal generator, a monitoring circuit, and a processing unit. **BT** requires separate units remotely installed and Brooks does not make up for this deficit. Therefore, all of the elements of claims 20 and 21 would not be taught, disclosed, or made obvious by **BC**, **Brooks**, or their combination.

Independent claims 1, 13, 20, and 21, are allowable for at least the reasons cited above. Additionally, dependent claims 2-3, 6, 7, 9-15, and 18-19, which depend from independent claims 1, 13, 20, and 21, respectively, are also allowable for at least the reasons cited above.

The Examiner rejected claims 4, 5, 8, 16, and 17 under 35 U.S.C. § 103(a) as being unpatentable over **BT** in view of U.S. Patent No. 6,452,767 (**Brooks**) as applied to claims, 1, 13, 20, and 21 above and in further view of U.S. Patent No. 6,137,839 (**Mannering**). Applicants respectfully traverse this rejection.

Relating to claim 1, claim 4 calls for one or more user devices comprising a plurality of user devices including at least one telephone and at least one computer. Adding the disclosure of **Mannering** to the disclosure of **BT** and **Brooks** does not make obvious all of the elements of claim 4. **Mannering** does not make up for the deficit of **BT** and **Brooks** in relation to claim 4, as described above in the context of claim 1.

Claim 5, which depends from claim 1, includes the additional feature of determining the need for a filter based on the monitored response of the copper line. The Office Action merely shows a splitter being present in *Mannering*. This does not equate to determining a need for a filter based on the monitored response of the copper line. Neither *BT* nor *Mannering* teach or suggest this feature. Accordingly, Claim 5 is itself patentable for these additional reasons.

Claim 8, which depends from claim 1, includes the feature of identifying a non-linear characteristic based on the monitored response of the copper line. The Examiner uses *Mannering* to make obvious this element. However, merely acknowledging the presence of non-linear characteristics does not equate to determining the presence of such based on the monitored response of the copper line. *BT*, *Brooks*, nor *Mannering* teach or make obvious this feature. Accordingly, Claim 8 is itself patentable for these additional reasons. Additionally, claims 16 and 17, which depend from claim 13, call for elements that are not taught or made obvious by *BT* and *Brooks*, as described above, and *Mannering* does not provide the missing subject matter of claims 16 and 17.

Even adding the disclosure of *Brooks* to *BT* and *Mannering* would still not provide one skill in the art with the ability to make obvious all of the elements of claims 4, 5, 8, 16, and 17. As described above, *Brooks* does not disclose monitoring the response of a copper line at about the point where the testing is applied, which by dependency is included in claims 4, 5, 8, 16, and 17. Therefore, adding the disclosure of *Brooks* to *BT* and *Mannering* would not disclose or make obvious all of the elements of claims 4, 5, 8, 16, and 17. Additionally, as described above, one skilled in the art would not combine *BT* with *Brooks* or *Mannering*, which is directed toward a digital subscriber loop. The arc fault detection in a transformer disclosed by *Brooks*

would not prompt or motivate one skilled in the art to combine such subject matter with *Mannering* and *Brooks*. Additionally, even if *Brooks* were to be combined with *BT* and *Mannering*, all of the elements as described above still would not be disclosed, taught, or made obvious by their combination. Therefore, claims 4, 5, 8, 16, and 17 are allowable for at least the reasons cited above.

As described above, independent claims 1 and 13 are allowable for at least the reasons cited above. Additionally, dependent claims 4, 5, 8, 16, and 17, which depend from independent claims 1 and 13, respectively, are also allowable for at least the reasons cited above.

The Examiner rejected claims 25, 43, and 44 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,014,425 (*Bingel*) in view of the *BT*. Applicants respectfully traverse this rejection.

Claim 25 calls for contacting a vendor for supplying service using the out-of-band data transmission protocol over the modem, providing the vendor with physical location information associated with the communication line, and receiving service availability data based on the physical location information. The Examiner asserts that *Bingel* inherently teaches this feature since it discloses an Internet network. Inherency requires that the feature must flow from the cited art. Simply stating that “the customer premises can communicate with a vendor throughout the internet for providing the customer premises’ physical information as well as requesting a service availability data from the vendor” does not equate to an actual teaching. *Bingel* nor does not mention contacting a service provider for purposes of receiving service availability data. Just because the internet could be used for such a contact is not a teaching of that feature, given that

neither reference even hints at such. Additionally, **BT** does not make up for this deficit. Accordingly, the Office Action fails to establish a *prima facie* case of obviousness. Applicants respectfully request the rejection of claim 25 withdrawn.

Regarding claim 43, **Bingel** in combination with **BT** does not disclose all of its elements. For example, neither **Bingel** nor **BT** makes obvious determining a local filtering of a location of a user device in response to determining if one user device is an interfering device, as called for by claim 43 of the present invention. **Bingel** does not disclose disconnecting a user device from the communication line and repeating the monitoring to determine with the disconnected device is an interfering device, as called for by claim 43. Although **Bingel** discloses repeating the testing (see col.8, lines 36-49), **Bingel** does not disclose disconnecting a device and repeating the testing to determine if the disconnected device is an interfering device. Adding the disclosure of **BT** does not rectify **Bingel's** lack of disclosure. Therefore, combining **Bingel** with **BT** still would not make obvious all of the elements of claim 43 of the present invention. Accordingly, claim 43 is allowable.

Independent claims 25 and 43 are allowable for at least the reasons cited above. Additionally, dependent claim 44, which depends from independent claim 43, is also allowable for at least the reasons cited above.

The Examiner rejected claims 23 and 28-30 under 35 U.S.C. § 103(a) as being unpatentable over **Bingel**, in view of **BT**, and further in view of **Mannering**. Applicants respectfully traverse this rejection.

Bingel does not disclose disconnecting a computer system adapted to instruct a user to disconnect a device from the communication line and monitoring the response to determine with the suitability of the communication line for each disconnection based iterative responses, as called for by claim 28. **Bingel** does not mention any type of disconnections to determine suitability of the communication line based upon iterative responses. **Mannering**, **BT**, or their combination does not make up for this deficit. The Examiner offers **BT** for making obvious the concept of out-of-band communication, while **Mannering** is offered for making obvious local filtering device. However, even with the subject matter that Examiner offers from **BT** and **Mannering**, the element of disconnecting a computer system adapted to instruct a user to disconnect a device from the communication line and monitoring the response to determine with the suitability of the communication line for each disconnection based iterative responses is not disclosed or made obvious. Therefore, merely adding the disclosure of out-of-band communications and a local filtering device would still not make obvious all of the elements of claim 28 of the present invention. Therefore, claim 28 is allowable for at least the reasons cited above.

Independent claim 28 is allowable for at least the reasons cited above. Additionally, dependent claims 23, 29, and 30, which depend from independent claim 28, are also allowable for at least the reasons cited above.

In light of the amendments and arguments provided hererin, reconsideration of the present application is respectfully requested.

Applicants acknowledge and appreciate that the Examiner allowed claims 33 and 35-42. In light of the arguments presented above, Applicants respectfully assert that all of the pending

claims of the present invention are allowable. In light of the arguments presented above, a Notice of Allowance is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Houston, Texas telephone number (713) 934-4069 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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